



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,174	07/11/2001	Motoi Tariki	1232-4735	9369

27123 7590 05/20/2004
MORGAN & FINNEGAN, L.L.P.
345 PARK AVENUE
NEW YORK, NY 10154

EXAMINER

TRAN, NHAN T

ART UNIT PAPER NUMBER

2615

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/903,174

Applicant(s)

TARIKI, MOTOI

Examiner

Nhan T. Tran

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 3, 5-40 have been considered but are moot in view of the new ground of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 5-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamagishi (US 6,710,807).

Regarding claim 1, Yamagishi discloses an image sensing apparatus comprising:

an image sensor (14) as shown in Fig. 1;

a storage area (memory 30) adapted to store a signal contained in at least two frames (two dark frames shown in Fig. 13), the signal to be stored in the storage area is generated by the

Art Unit: 2615

image sensor when a button is pressed halfway (switch SW1 is ON), and an object is photographed when designation of photographing of the object is initiated (switch SW2 is ON) in accordance with operation of the release button; a controller (system controller 50, Fig. 1) adapted to control the operation of writing a signal contained in at least two frames, which generated by the image sensor, into the storage area; a correction unit adapted to correct a signal of an object image photographed by the image sensor, on the basis of the signal stored in the storage area (see Fig. 13; col. 17, lines 30-67 and col. 23, lines 36-50).

Regarding claim 2, Yamagishi further discloses that if an operation of writing a signal generated by the image sensor into the storage area is being executed when photographing of an object image is designated, the controller makes photographing of the object image possible against the writing operation (see Fig. 13 and col. 17, lines 24-29).

Regarding claim 3, Yamagishi discloses that whenever writing a signal of one frame generated by the image sensor into the storage area, the controller switches storage areas into which the signal to be written (see col. 13, lines 3-20 and col. 16, lines 53-62, wherein the memory 30 is partitioned into predetermined areas for storing dark frames and image frames separately).

Regarding claim 5, Yamagishi discloses that the controller writes signals generated by the image sensor into the storage area in turn at a predetermined time interval in a photographing

Art Unit: 2615

preparation state (see Fig. 13, col. 23, lines 36-50, wherein the dark frames are captured repeatedly at a predetermined time interval).

Regarding claim 6, see the Examiner's analysis in claim 5.

Regarding claim 7, also disclosed is the correction unit subtracts a signal stored in the storage area from a signal of an object image photographed by the image sensor (see col. 17, lines 50-67). It should be noted that in order to remove dark current noise using dark data, the correction process must subtract the dark data from the sensed image data as an inherent process in Yamagishi.

Regarding claim 8, Yamagishi further discloses that the controller allows storage of a signal of an object photographed by the image sensor into the storage in continuous photographing (see col. 4, line 65 – col. 5, line 5).

Regarding claim 9, see the Examiner's analysis in claim 8.

Regarding claim 10, see the Examiner's analysis in claim 1.

Regarding claim 11, Yamagishi also discloses that the time of storage of electric charge to the image sensor is controlled during which a dark current noise component is acquired (col. 13, lines 55-61 and col. 17, lines 24-29).

Regarding claim 12, Yamagishi further discloses that the correction unit corrects a signal of an object image photographed by the image sensor, on the basis of a noise component stored in the storage area and the time of storage of electric charge to the image sensor during which the noise component is acquired (see col. 23, lines 44-60 and col. 18, lines 15-24).

Regarding claim 13, see the Examiner's analysis in claims 1 & 2, wherein the first signal is a dark signal, the second signal is a sensed image signal and the control unit stops writing the dark signal into the memory 30 when the shutter switch is fully depressed (SW2) to give priority to photographing of an object.

Regarding claim 14, see the Examiner's analysis in claim 1.

Regarding claim 15, see the Examiner's analysis in claim 1. Also, see col. 4, lines 3-7 and col. 13, lines 55-61.

Regarding claims 16-23, see the Examiner's analysis in claims 5-12, respectively.

Regarding claims 24-34, see the Examiner's analysis in claims 13-23, respectively.

Regarding claim 35, see the Examiner's analysis in claim 1.

Regarding claims 36 & 37, see the Examiner's analysis in claim 13.

Regarding claims 38-40, see the Examiner's analysis in claims 1 and 13. In addition, memory 52 (Fig. 1) is used to store a control program for operating the image sensor and overall operation of the camera. See col. 5, lines 55-58.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (703) 605-4246. The examiner can normally be reached on Monday - Thursday, 8:00am - 6:00pm.

Art Unit: 2615

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew B Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NT.



ANDREW CHRISTENSEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600